

Code No: G6801/R13

M. Tech. I Semester Supplementary Examinations, JAN/FEB-2018

MICROCONTROLLERS FOR EMBEDDED SYSTEM DESIGN
(Common to VLSI&ES, ES&VLSI, VLSID&ES, ES and ES&VLSID)

Time: 3 hours

Max. Marks: 60

Answer any FIVE Questions
All Questions Carry Equal Marks

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|------|---|--------|
| 1. a | What is meant by ARM, Explain the ARM design philosophy | 6M |
| b | Explain the different types of ARM processor families | 6M |
| 2. | What is meant by ARM, explain the instruction set of ARM programming model-1 | 12M |
| 3. a | Explain about ARM programming with one example | 6M |
| b | With a suitable example, Explain about the conditional execution | 6M |
| 4. a | Explain about ARM programming with one example | 6M |
| b | With a suitable example, Explain about the conditional execution and loops in ARM programming | 6M |
| 5. a | Explain about the Memory management unit and page tables | 6M |
| b | Explain about the cache architecture in memory management | 6M |
| 6. a | Explain about the interrupts and vector table of ARM | 6M |
| b | Explain about the architecture revision | 6M |
| 7. a | What is meant by stack, explain with a suitable example | 6M |
| b | Explain about the pointers and structures of ARM programming | 6M |
| 8. | Write a short notes on
(i) content switch
(ii) register allocation
(iii) flushing and caches | 3×4=12 |

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